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Growth is Good for Whom, When, How?
Economic Growth and Poverty Reduction in Exceptional Cases

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"It should come as no surprise that the general relationship between growth of income of the poor and growth of mean income is one-to-one." (Dollar & Kraay, 2000, p. 28)

"Faster growth is normally better for the poor than slower growth, and is not systematically offset by any change in distribution. But huge exceptions – and the possibility of clusters of countries where growth is much better for distribution, or much worse – mean that these findings are the beginning, not the end, of the inquiry. Residuals matter." (Eastwood & Lipton, 2001, p. 16)

1. INTRODUCTION

Economic growth often helps the poor, but what about the numerous cases when it does not? The widely-held belief that economic growth generally reduces poverty, encapsulated by two World Bank economists in the above-quoted article entitled "Growth is Good for the Poor," leaves many cases unexplained. In their article – one of the most influential to advocate this argument – Dollar and Kraay analyze hundreds of cases (countries over periods of at least five year time periods), concluding that economic growth and poverty reduction are related on a one-to-one basis (Dollar & Kraay, 2002, p. 196). In addition, macroeconomic policies associated with liberalization, such as reducing inflation, moderating the size of the government, respecting the rule of law, opening the economy to trade and establishing a sound financial system, are good for both generating economic growth and reducing poverty (p. 218). Many scholars have criticized Dollar and Kraay's research on methodological and theoretical grounds (e.g., Danielson, 2001; Eastwood & Lipton, 2000; Ravallion, 2001; Rodrik, 2000). The present article adopts a different tact, taking seriously Eastwood and Lipton's criticism (quoted above) that the original work ignores cases that are exceptions to the economic growth-poverty reduction relations – in short, that "residuals matter." As Dollar and Kraay recognize on numerous occasions in their article, even a one-to-one relationship represents an average – a generalization with numerous exceptions. We can learn much from studying such exceptions.

This research paper applies Dollar and Kraay's data to examine two types of exceptions to this generalization. The first are "positive exceptions," cases during specific time periods in which the

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poor did much better than the model's prediction based on economic growth rates. The second type, "negative exceptions," includes cases in which the income of the poor increased significantly less than was expected. Examining these positive and negative exceptions is useful for illuminating pathways other than growth (or the absence of it) for poverty reduction (or the lack of it). Perhaps the positive exceptions can discern policy approaches other than economic growth that are effective for reducing poverty, providing hope and alternatives to the myriad economies in which economic growth has either been elusive or too slow in reducing poverty. Negative exceptions, likewise, may teach us approaches to avoid. In either case, this analysis moves beyond simple reliance on economic growth and looks for potential systematic factors that might explain the exceptions. Although "on average" economic growth can be expected to help reduce poverty, as World Bank economist Martin Ravallion argues, "people are often hurting behind the averages. Panel data and observations from the ground can reveal this, but the aggregate statistics cannot. It is important to know the aggregate balance of gains and losses, but it will be of little consolation to those suffering to be told that poverty is falling on average," (Ravallion, 2001, p. 1811).[2]

In this way, this paper neither contradicts nor confirms the general relationship between economic growth and poverty reduction. It argues instead that there are multiple pathways to poverty reduction, of which Dollar and Kraay identify but one – economic growth generated through liberal economic policies.[3] As some have argued (e.g., George & Bennett, 2005; Goertz, 2005), relying on aggregate statistics is not the best way to identify the numerous diverse paths to a result, such as the multiple way that countries have successfully, and unsuccessfully, addressed poverty. Instead, careful qualitative research can be more effective in identifying alternative, contingent pathways. Else Øyen's argument, nearly a decade old, applies equally today, "Up-to-date data are necessary to ensure that the poor and the intensity of poverty are kept visible to the public eye, but it may still be wise to put somewhat less energy into sheer measurement research, and instead turn to issues that yield more in poverty understanding" (Øyen, 1996, p. 10).

2. IDENTIFYING EXCEPTIONS

Defining the poor as the lowest quintile in terms of income, Dollar and Kraay compile a dataset from four different standard sources to produce 953 observations from 137 different countries or territories between 1950 and 1999. To render the sample more evenly distributed across countries, Dollar and Kraay choose dates from each country that are spaced five years apart, starting with the first year available, resulting in 418 country-year observations of mean income of the poor. The authors further filter the sample to 258 observations from 92 countries with at least two observations, also spaced five years apart.[4] Dollar and Kraay, performing an ordinary-least-squares

[2] Ravallion (2001) notes that with a 95 percent confidence interval, a two percent growth rate in average household incomes will reduce the poverty rate anywhere between one to seven percent.

[3] Dollar and Kraay's conclusions are quite limited. Even if accepted at face value, Dollar and Kraay's results do not indicate that economic growth reduces either absolute poverty, since they define poverty relatively within each country, or inequality, since positive overall income growth varies one-to-one with the income of the poor actually increases the gap between rich and poor (Eastwood & Lipton, 2001; Ravallion, 2001).

[4] For a more thorough explanation of the dataset and their analysis, see Dollar and Kraay (2002). Because the resulting periods do not correspond to changes in administrations or policies, the particular patterns of years impede analysis of the political causes of changes. This problem affects

regression analysis of economic growth against poverty reduction, find an R^2 of 0.49 and a regression line with a slope of 1.19. In spite of these results, the authors realize (notwithstanding their uncompromising title) that they cannot claim that poverty rates vary lockstep with changes in the economy, cautioning, "Our findings do not imply that growth is all that is needed to improve the lives of the poor. Rather, we simply emphasize that growth on average does benefit the poor as much as anyone else in society, and so standard growth-enhancing policies should be at the center of any effective poverty reduction strategy," (Dollar & Kraay, 2002, p. 219). While Dollar and Kraay attempt to adjust to the difficulties in comparing surveys across counties, such as differing coverage, measures and units between observations, critics argue that this dataset has numerous additional methodological problems. Nevertheless, I adopt the same dataset because it provides a common basis from which to identify and learn from exceptions to the relationship between economic growth and poverty reduction.

Although measurement errors and other data problems can be exacerbated when shifting from aggregate data to individual cases, closer scrutiny is also an effective way to identify such errors. For instance, such analysis revealed at least two cases among the 27 cases that apparently contain serious data errors. The first is Nepal. While Dollar and Kraay's dataset reports that Nepal experienced a slight negative annual growth rate (-0.15%) between 1977 and 1984, the World Bank's World Development Indicators report positive economic growth across a variety of measures of GDP. Moreover, outlying villages in Nepal – among the poorest in the country – that were inaccessible by navigable road were probably not counted in the survey, and thus the data reflecting poverty reduction may be inaccurate. Second, the data for Yemen is even more suspect. Given the civil war, conflict with Eritrea, and extremely low literacy rates, it is unlikely – and little evidence can be found – that the income of the poor increased 8 percent per annum, as Dollar and Kraay's data suggest.

Overall, Dollar and Kraay's sample contains much more variation than an R^2 of 0.49 implies. For instance, more than one in six of the authors' 285 historical cases violate the expectation that positive income growth improves the income of the poor (in 45 cases, incomes of the poor declined while GDP increased) or that negative income growth will reduce incomes of the poor (in six cases the income of the poor increase despite negative GDP growth). Indeed, a number of data points lie far enough away from the regression line that the income of the poor is statistically unlikely to be explained by economic growth alone. Instead of looking at the dataset in aggregate, this article uses the exceptional cases to identify alternatives to economic growth for poverty reduction.

---- TABLE 1 HERE ----

Exceptions are determined by computing residuals, the vertical distance between the regression line and each data point, and calculating the probability that the distance is due to random variation. The further away any given point is from the regression line, the less likely it is that the model explains that point. For each data point, when the probability that changes in GDP explain changes in the income of the poor drops below five percent in either direction (equivalent to a 90 percent confidence interval), I label that point an "exception." This process generates two types of exceptions (listed in Table 1): a) cases in which the increase in the income of the poor significantly outpaces expectations based on economic growth ("positive exceptions," – positive from the point of view of poverty reduction), and b) cases in which the increase in the income of the poor was much less than the expectations based on economic growth ("negative exceptions"). Specifically, I

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the authors' attempts to assign variables to factors such as degree of democracy and trade openness, as well as my attempt to analyze why some cases were exceptions.

subtract the change in poverty rates predicted by the model (column 4 in Table 1 below) from the value reported by the data (column 5) and record this "residual" value in column 6. Column 7 (labeled "outlier") records the probability that the position of each case's corresponding value for income of the lowest quintile is caused by random variation. This is estimated by calculating the "P" values of the residual's "Z" scores to determine the chance that the point's distance from the regression line is caused by random factors. For instance, as seen in Table 1, Finland during the period between 1962 and 1971 saw an annual growth rate of 3.99 percent, according to Dollar and Kraay's data. Although the model predicts that the income of the poorest quintile should have increased 4.05 percent, the actual increase over this period, according to the data, was 14.6 percent, a difference of 10.56 percentage points. Since the likelihood that this data point can be explained by random error is approximately 0.38 percent, Finland is considered a positive exception. By contrast, China's economy between 1990 and 1995 grew at an annual pace of 8.7 percent. However, although the model predicts that the growth rate in the income of the bottom quintile would exceed 9.6 percent, the income of that group grew annually by only 0.87 percent. The chance that this data point is explained by random error is approximately 1.3 percent, meaning China during that time period qualifies as a negative exception.

These exceptions are not trivial. In the 13 positive exceptions, the income of approximately 33.5 million poor people grew faster than the model's predicted rate by an average of 9.1 percentage points, while around 341 million poor people (101 million, excluding the case of China) in the 14 negative exceptions saw their incomes rise by an average of 8.5 percentage points less than the model predicted.[5] Moreover, these cases point towards alternative paths to poverty reduction, recipes that do not include growth, at least not as a prime ingredient. This paper examines the possibility that in these exceptional cases, specific political, social or economic factors explained the particular pattern of economic growth and poverty reduction experienced in the country. A complete analysis of each of the cases is an ambitious project, requiring greater time, space and specific area knowledge than is afforded here. Nevertheless, an initial examination reveals that these exceptional cases represent a range of approaches to poverty reduction and economic growth. None of these paths is new in that scholars have identified and analyzed many of them long ago. Nevertheless, because they re-emerge using Dollar and Kraay's own data, they underscore that there are viable alternatives to Dollar and Kraay's conclusions about the importance and centrality of economic growth and the need for implementing a set of liberal policies to reduce poverty.

3. EXCEPTIONAL CASES

Three of the positive exceptions are Scandinavian social democracies with broad-based social programs designed to minimize poverty rates (Gustafsson & Pedersen, 2000). Both Norway and Finland's policies are characterized by large-scale government transfers, decommodification, unemployment programs and other extensive social programs (Kenworthy, 1999). While Norway's economy grew relatively slowly between 1979 and 1984 (2.8 percent each year) and again between 1989 and 1995 (per capita GDP declined 0.2 percent on average each year), the income of the poorest quintile grew rapidly, increasing 14.6 percent and 9.6 percent on average each year over those periods, respectively. The per capita GDP of Finland grew on average nearly four percent each year between 1962 and 1971, while the income of the bottom quintile increased 14.6 percent on average each year over that period. For Finland, this was a period of rapid poverty reduction, with

[5] Because Dollar and Kraay's data exclude many poor countries, there may be more exceptions.

the number of Finns with income below the minimum national pension declining from 20 percent in 1966 to less than six percent in 1971, a result that the authors of one major study argue is explained by the establishment of a welfare state, "clearly the major, if not the only reason for the declined poverty rates in Finland," (Gustafsson & Uusitalo, 1990, p. 256, 261). That Finland was a positive exception only in this period, and not in others, probably reflects increasing unemployment rates in the 1970s (from 1.9 percent in 1974 to 7.3 percent in 1978) and life-cycle changes which slowed gains for the poor (Gustafsson & Uusitalo, 1990). Neither of these countries directly relied on economic growth, and both implemented policies that conflict with liberal economic policies, with the welfare state creating conditions for rapid gains for those with lowest incomes while the economy as a whole grew more modestly. The extensive welfare provisions and cradle-to-grave coverage, as well as the large and progressive tax rates needed to support this system likely came at the expense of growth rates, an exchange the country was apparently willing to accept.

Even as these social democracies maintained broadly targeted programs to ensure the distribution of wealth throughout these societies, one positive exception reduced poverty through newly established, targeted social safety nets and complementary social programs. During the oft-derided presidency of Giscard d'Estaing, the growth in income of France's poorest quintile outpaced economic growth to such an extent that the country qualifies as a positive exception. During this period Giscard, arguing that France would "never be at ease with herself until all the old inequalities had been removed," established no fewer than seven benefit programs targeting and protecting the poor. Prime Minister Chaban-Delmas solidified France's welfare state by pursuing a "new society," including vocational training, welfare for the poor and elderly, and minimum wage increases. Meanwhile, oil shocks and skyrocketing raw material prices, combined with the collapse of the Fordist system of manufacturing slowed the economy (Levy, 1999). As a result, the income of the bottom quintile increased by an average of nine percent each year, in spite of the country's moribund overall economic performance of 2.2 percent each year between 1977 and 1982. Conservative leadership strengthened the welfare state, helping to increase the incomes of the poorest quintile, shielding them from factors that slowed the growth of the overall economy.

A number of positive exceptions from the developing world achieved poverty reduction through aggressive land reform and other distributive policies. Colombia (1964-1970) is one case in which a large-scale program of land reform, implemented during the presidency of Carlos Lleras Restrepo (1966-1970), helped increase significantly the income of the poor. Between 1968-69 alone, some 60,000 land titles involving 2.5 million hectares were issued to peasants and unemployed workers, a move that was vital to empowering the poor (Findlay, 1972).[6] In addition, Restrepo's policies helped curb inflation, diversified the economy away from the waning coffee market and improved the country's balance of payments. Dollar and Kraay's raw data supports this view, reporting that the Gini index for income in Colombia declined from 0.62 to 0.52 between 1964 and

[6] The evidence related to the effects of land reform on poverty in Colombia is mixed. Some analysts, noting that the Gini coefficient for land holdings declined only modestly from 0.87 to 0.84 between the 1960s and 1990 (Deininger, 1999), argue that land reform failed to make land holdings more equitable, in part because most of these new land titles were taken not from large farms but from public land (Dorner & Felstehausen, 1970). However, the date range of these analyses may be too broad: land reform was rolled back in the early 1970s. Subsequent research shows that the increase in the concentration of land holdings, as Deininger (2004) subsequently noted, occurred after this rollback, primarily between the mid-1980s and 1990s. For instance, the share of land controlled by larger farms increased from 46 percent to 54 percent between 1984 and 1997.

1970 (although the Gini index rose again from 0.51 to 0.57 between 1991 and 1995 once land reform was reversed). Thus, during a period in Colombia, which included several years of land reform (1964-1970), this and other pro-poor policies seem to be primary causes behind the income growth of the poor, which averaged 17 percent each year. However, stimulating the rural economy rarely helps spur rapid economic growth, which came in at a modest 2.3 percent per year over the period.[7]

Redistributive policies are also responsible for the exceptional income growth of the poorest quintile in some of the other exceptional Latin American cases. For instance, the term of Peru's President Juan Velasco Alvarado was characterized by nationalization of the petroleum and other industries, as well as compulsory land reform policies and broader education policies (Lopez & Valdes, 2000; McClintock, 1981). Although Peru's economy stagnated between 1971 and 1981, growing less than one percent on average as foreign debt mounted, the income of the poor in Peru increased by more than eight percent per year over that time as peasants benefited from land reform and other redistributive policies. Moreover, the low growth was likely directly linked to the government's poverty reduction policies, suggesting poverty reduction came to some extent at the expense of economic growth. Between 1972 and 1985, inequality declined sharply with the share of the total income of the poorest 60 percent increasing from 18 to 27 percent, according to one survey (Glewwe, 1988). Similarly, the income of the poorest quintile of El Salvador (1989-1995) increased 9.5 percent on average, despite a relatively modest annual average economic growth of nearly 2.6 percent. The peace accords signed in January 1992 that ended the civil war in that country coincided with policies designed to address staggering inequality through land transfers, rural education, support for establishing microenterprises and housing assistance, broadened poverty alleviation programs and spending for social sectors, policies intended to reintegrate combatants into civilian life. These primarily benefited lower income growth by enhancing non-agricultural jobs, as well as improving education and opportunities for the poor (Boyce, 1995; Marques, 2004). These progressive redistributive programs, along with remittances from relatives overseas[8] and a period of relative peace and stability, helped to make El Salvador a positive exception in which the poor received a disproportionate share of the benefits of economic growth.

Similarly, Chile's first post-Pinochet government era, led by the reform-minded, center-left government led by Patricio Aylwin, was marked by gradual reform, redistribution and relative empowerment of the poor, making the country a positive exception (1987-1992). The repressive Pinochet dictatorship (1973-1989), advised by the "Chicago Boys," a group of University of Chicago trained economists inspired by Milton Freidman, was famously neoliberal (Hudson, 1994). Yet, the administration's economic record was surprisingly mediocre, with per capita economic growth averaging a modest 1.9 percent each year from 1974-1989, and regressive, leaving 44.4 percent of all Chileans under the poverty line in 1987 (Ritter, 1992). Based on a credo of "growth with equity," the subsequent Aylwin administration implemented an ambitious set of social programs. In the early 1990s, Aylwin increased real health expenditures by an impressive 70 percent and expanded primary health care services in poor areas, both rural and urban. The government strengthened labor unions,

[7] Urban-to-rural migration increased substantially, probably contributing to these rates of growth. However, the rate of increase in the urban population, which greatly outpaced expansion of urban jobs, limited the benefit of migration for the income of the poor (Dorner & Felstehausen, 1970).
[8] In 1989, remittances from relatives made up 3.5 percent of the country's GDP. After the peace accord was signed, remittances increased rapidly, reaching US$686 million, or 8.1 percent of GDP, in 1992, and US$870 million, or 9.7 percent of GDP, in 1994 (Wood & Segovia, 1995).

vigorously oppressed by Pinochet, carefully compromising with business to protect workers without undermining the market economy. New programs providing job training and child care were also enacted, while pensions were made more equitable. All of this was paid for by increases in the value-added tax. These policies were largely responsible for the striking decline in poverty from 5.2 million in 1990 to 800,000 in 1992, with a 50 percent decline in the poverty gap (Weyland, 1997). Further, Alwyin allowed a degree of decentralization, providing greater autonomy to the municipalities and provided them with independent funding. Programs such as those related to Chile's Sectoral Regional Investment (ISAR), allowed regional governments to request the transfer of up to five percent of the investments of Chile's sectoral ministries. Projects transferred under the ISAR mechanism included rural and urban roads and pavements, neighborhood schemes and potable water. Decentralizing these schemes led to a more equitable distribution of resources amongst the municipalities, and local governments' better understanding of local conditions further benefited the poorest people in the country (Stewart & Ranis, 1994). Dollar and Kraay's data is consistent with the research of others (e.g., Larranga 1994, Castro 1994, cited in Weyland) that economic growth cannot fully explain the strong employment growth and rise in wages (a predicted 5.14 percent increase in income of the lowest quintile compared to the 13.35 percent rise actually measured). Despite Aylwin's reforms, the administration did not fundamentally alter the liberal market system, but promoted significant yet gradual change through effectively increasing spending for social programs and protections, and the poor benefited disproportionately from the relatively robust growth.

Contrasting with this reform-minded government, one of the positive exceptions in Latin America implemented structural reforms, indicating that liberal prescriptions can be a path that helped cases become positive exceptions. Rodrigo Alberto Carazo Odio, Costa Rica's conservative president between 1978 and 1982, faced an emerging debt crisis and rapidly increasing inflation rates. In response, he implemented IMF-prescribed reforms and policies to liberalize the economy, with mixed results. Between 1977 and 1982, Costa Rica's economy shrank more than three percent each year on average, increasing unemployment. Despite the recession, the income of the poor gained 2.25 percent, far exceeding the predicted 4.72 percent loss, which rendered the country a positive exception during this period.

Just as countries have traversed a variety of paths to become positive exceptions, so too have some countries become negative exceptions through a range of policies. The most common of these did so through rapid liberalization and reform. The "shock therapy" and privatization policies implemented by governments of Eastern Europe and the former Soviet Union in the wake of Communism's collapse sharply contracted the economy, eliminating millions of jobs and destroying the already fraying social safety nets of the Soviet system. This affected the poor especially badly (Bunce, 1999). While the gross domestic products of Bulgaria (1989-1994), Estonia (1988-1993) and Ukraine (1988-1995) declined annually by an average of 4.9 percent, 8.4 percent and 11 percent, respectively, over this period, the income of the poor fell far more than expected, declining each year by an average of 16.3 percent, 18.4 percent and 20.2 percent, respectively. Russia's experience (1989-1993) is especially dramatic. While the Russian economy contracted as per capita GDP declined 6.4 percent each year on average, the income of the poor declined 20.9 each year, as workers were retrenched, inefficient factories were closed, the agricultural sector weakened and economic protections were dismantled. These eastern European countries implemented sudden transitions from planned to market-based economies, including the removal of price supports, elimination of subsidies from state-owned enterprises, liberalization of foreign trade and slashing of government expenditures (Derleth, 2000), especially rapid versions of liberal reforms that Dollar and Kraay advocate. Lacking economic and political institutions, needed as regulators and facilitating

mechanisms in the absence of the state and considered to be essential for the capitalist economy to moderate the effects of these sudden shifts, the economy collapsed. GDP plummeted in these countries with the poor suffering more than others (World Bank, 2000).

Because Poland is often cited as defying this trend, it is surprising to find it among the negative exceptions. When Poland liberalized after the fall of communism, new-found freedom to participate and invest in the economy sparked economic growth overall, making the country the only post-socialist state to achieve a positive average GDP growth rate between 1990 and 1997 (Bunce, 1999) and the only European post-socialist economy to surpass its pre-transition GDP within six years of the transition (Derleth, 2000). However, like other Eastern European countries, shock therapy also aversely affected the lowest quintile. Rapid privatization caused mass layoffs of workers, increasing unemployment from nearly zero to more than 15 percent between 1989 to 1993, without the corresponding safety nets found in most Western European countries (Kramer, 1995). The poor's income declined by an average of 2.7 percent each year between 1991 and 1996,[9] less than in other shock therapy countries, but enough to raise misgivings on Poland's status as a 'model' example of post-Communist reform (e.g., Sachs, 1995, p. 275), as far as poverty is concerned. In Poland's case (unlike much of the rest of post-Communist Eastern Europe) liberalization spurred growth, but (like the region's other reforming states), these impressive gains came at the expense of income growth among the poor.

At least two other countries became negative exceptions because they scaled back or eliminated progressive social policies. Colombia, between 1970 and 1978, directly after the period in which the country was a positive exception, became a negative exception. During this period, in order to liberalize and allow the market to make distribution decisions, the government rolled back land reform and other progressive social policies that it had implemented during the previous period. In their place, the government implemented market-oriented policies, including opening the economy, providing incentives for foreign capital and eliminating barriers to free investment in the countryside (Molano, 2000). The government's cancellation of land reform in 1971 and the subsequent introduction of new crop varieties during the green revolution exacerbated the already inequitable distribution of land (Findlay, 1972; Puyana, 2000). Ironically, though this is considered a time of economic recovery, with annual per capita GDP growth in Colombia increasing during this period by 3.3 percent on average, the income of the poor concurrently declined annually by an average of 4.8 percent. Thus, while the cancellation of many of the pro-poor programs likely increased economic growth rates, compared to that of earlier periods, this growth came at the expense of policies intended to reduce poverty, and reduced the income of the poor.

That China (1990-1995) is a negative exception is surprising, since it is often cited as a typical case in which economic growth directly contributed to poverty reduction (e.g., Zhang, Huang, & Rozelle, 2003). One key reason was the shift from reforming the rural economy to stimulating urban development. For instance, subsidized loans, originally intended to reduce rural poverty through subsidizing poor agricultural families' investments in agricultural inputs and assets, were redirected during this period to promoting industry, retarding its effect on rural poverty reduction (Zhang et al., 2003). Despite rising overall GDP rates, this period saw a declining share of GDP for agriculture (especially between 1990 and 1993), which one recent World Bank study emphasizes is crucial for poverty reduction (Ravallion & Chen, 2007). Finally, between 1988 and 1995, education and health

[9] This is consistent with poverty rates published by the World Bank that suggest that Poland's poverty rates were higher in 1998 than they were in 1991 (World Bank, 2000).

care costs took an increasingly high proportion of rural incomes of the rural poor, an effect which countered much of the benefits of economic growth for the poor (Gustafsson & Li, 2004). According to Dollar and Kraay's data, economic growth in China between 1990 and 1995 increased by an average of 8.7 percent, even as the income of the poor increased on average less than one percent each year, a rate that is consistent with Gustafsson and Li's disaggregated income data (p. 295). Thus, while the income of the poor continued to rise, it lagged far behind the growth in income in the rest of the population.

Debt, inflation, widespread corruption and misguided policies were primary factors for Brazil's becoming a negative exception. The country's economic downturn of 1986-1993, a period of mounting debt and rampant corruption, were overseen by the Sarnay administration. The poor were also hurt by a punitive policy of price and wage control and a 1987 moratorium on foreign debt payments that isolated Brazil, weakening foreign credit and investment. In 1990, its first year in office, the succeeding Collor presidency implemented far-reaching economic reforms, including deepening price and wage freezes, confiscating savings and deindexing the economy. While this successfully curbed inflation, real incomes plummeted, especially for the poorest (Roett, 1999). Meanwhile a sagging agricultural sector affected large numbers of rural residents, particularly in northeastern Brazil. Abuses of the state hamstrung national development (per capita GDP declined about one percent each year over that period), and the poor, whose income declined 10.6 percent per year, faring far worse than the population as a whole.

Chaos and violent disruption was the direct cause of at least one negative exception. The economic losses to the poor when death squads terrorized El Salvador compounded the general misery of this period. Much of the period of the "death squads," which began with the right-wing military government seizing power in 1979 and ended with peace accords in 1992 (Boyce, 1995), overlaps with the 1977-89 period in which the income of the poor shrank 9.3 percent per year, compared to the annual decline in per capita GDP of 1.7 percent. (Subsequently, as described above, the country's recovery qualified it as a positive exception.) The civil war ultimately claimed 70,000 lives and destroyed much of the nation's infrastructure. While the economy as a whole suffered greatly, the severe disruption in the education system and other social services further eroded the already precarious living conditions of the poor, disproportionately affecting poor people, who were affected more than other groups (Marques, 2004).

Given the country's relatively broad-based public housing and education programs intended in part to moderate poverty, Singapore's status as a negative exception is also unexpected. Nevertheless, between 1978 and 1983, when per capita economic growth averaged 5.8 percent per year, the income of the lowest 20 percent declined 1.3 percent on average each year. During this period, the government transformed the economy to be more capital-intensive, encouraging the automation of processes previously done by non-skilled or semi-skilled physical labor (Chow, Lee, Hameed, & Cheong, 1988, p. 178; Peebles & Wilson, 1996, p. 37). Since public assistance for the poor in Singapore is highly restricted, families avoid poverty primarily through employment (Lee, 2001). During this period, economic growth remained moderately strong as productivity increased, but those with insufficient human capital (the poor, disproportionately) to meet new demands from the service sector suffered job losses and lower incomes (Chow et al., 1988). Economic growth likely came at the expense of the poor.

Focusing on exceptional cases can sometimes identify two comparable countries that are relatively similar in many aspects, but are on opposite ends of the spectrum. Examining these naturally controlled cases allows us to focus on contrasting policies and other factors that might

cause the differences. This sample contains two neighboring African countries, one a positive exception (Mauritania), the other a negative one (Mali). The increase in the income of the poor in Mauritania (9.7 percent on average between 1988 and 1993, despite growth of 1.7 percent) can be explained by several major factors. First and most important was a return to stability in the wake of three factors: a) recovery from repeated droughts in the 1980s, b) the cessation of the militarized conflict with Senegal and c) the end of the country's isolation from western powers that began when Mauritania supported Saddam Hussein during the first Gulf War. In the early 1990s, President Ould Taya introduced political and economic reforms, granted amnesty to former militants and political opponents, and held free elections. With his sweeping election victory, the president oversaw several years of relatively stable and effective government and various types of non-governmental organizations and other forms of civil society flourished (Pazzanita, 1997).[10] Second, a large-scale mining sector – including recently established copper and gold industries – added jobs that low-skilled poor people could perform (Coulombe & McKay, 1996). Third, IMF programs that were suspended during the war with Senegal but reinstated in 1992 also had the effect of reducing domestic demand through fiscal consolidation and a conservative monetary policy – effects which likely constrained GDP growth, but did not hurt as much the rural poor, who relied on subsistence farming and were insulated to a certain extent from the formal economy. While the stability of this period helped boost the economy as a whole, it likely favored the rural poor who suffered greatly through the war and drought. This factor, combined with new opportunities and programs for the poor, explains the reported disconnect between economic growth and poverty reduction.

Mali, Mauritania's neighbor, was also an exception between 1989 and 1994, but a negative one. Just before this period, in a misguided attempt to respond to a series of droughts, the government liberalized and restructured the agricultural sector, flooding the market with cheaper imports and destroying the market for domestic agricultural production. Under IMF loan conditions, Mali slashed government employment, sold state assets, increased taxes and enhanced control over import and export duties. The sudden and steep devaluation of the local currency paradoxically made it more difficult and expensive for urbanites – the poor especially – to purchase food (Toulmin, Leonard, Hilhorst, & Diarra, 2000). The resulting economic recession – per capita GDP declined 2.6 percent on average each year between 1989 and 1994 – was especially harsh on the country's poor, whose income declined 11.4 percent annually over that period.

4. ANALYSIS

As Table 2 summarizes, there are multiple paths to reduce poverty and many ways to exacerbate it. Progressive redistribution policies explain at least three positive exceptions (Colombia, Peru and El Salvador). The government of one case (France 1975-1981) strengthened the nation's social safety net through extensive state-sponsored welfare programs. Three cases are Scandinavian social democracies. Structural readjustment policies based on liberalization explain at least one positive exceptions (Costa Rica), while stability and increased opportunities for employment of the poor combine to create the final positive exception examined here (Mauritania). In each of these cases, policies were implemented that increased the incomes of the poorest quintile to a greater extent than predicted by overall growth. Similarly, negative exceptions traversed a variety of pathways. Two

[10] This stability was short-lived, as President Ould Taya favored specific tribes and regions to a greater extent than other presidents of the country had, a fact that contributed greatly to subsequent dissatisfaction with the regime, and tribal-based corruption increased steadily over time.

(Colombia 1970-1978 and China 1990-1995) rolled back progressive policies. Violence and the destruction of civil war explain one negative exception (El Salvador), while corruption, debt and inflation explain yet another (Brazil 1986-1993). The implementation of structural adjustment policies was the most common path taken by negative exceptions. Two implemented structural adjustments of various types – Mali an IMF program and Singapore an internally-derived development strategy. Five eastern European cases implemented policies identified with "shock therapy," that also involved wholesale structural adjustment. Each case saw the income of the poorest drop far more than would be expected by economic growth alone (only one case did the income of the poor actually grow at all). This list, generated from a limited sample, does not exhaust the range of possible strategies.

---- TABLE 2 HERE ----

Many cases involve other factors that cut across those in Table 2. First, many cases support the finding that promotion of agriculture, especially in the developing context, can help the poor to a greater extent than economic growth alone (e.g., Dorward, Kydd, Morrison, & Urey, 2004; Mellor, 1995). While traditional agriculture is often the main occupation of the poor, it is often of low scale and lacking in technology, and is thus not generally particularly productive. An expanding agricultural sector therefore can contribute to poverty reduction while not substantially promoting economic growth in the short term. This was seen in the positive exceptions which implemented land reform (e.g., Peru, Colombia 1964-1970 and Nepal), as well as in negative exceptions in which the agricultural sector slackened (e.g., Colombia 1970-1978, China and Mali).[11] Thus, agriculture – for good (if it is promoted) or ill (if it slackens) – seems to be instrumental in explaining the results of a number of exceptional cases. Second, democratization is a mixed bag regarding its impact on poverty, as some have argued (e.g., Leftwich, 2005). While the positive exception of Chile (1987-1992) is one case in which democratization encouraged pro-poor policies, other cases cast doubt on the positive role of democracy. For instance, the authoritarian leader of Peru was able to use the coercive power of the state to implement a sweeping program, including forced land reform and other programs that contributed to improving the incomes of the poor. Moreover, the wave of democratization that swept across Eastern Europe coincided with economic stagnation that disproportionately hurt the poor. On the other hand, this likely resulted more from the breakdown of government institutions brought about through rapid reform than it did from democratization per se.

This research also supports the hypothesis that "inequality <u>is</u> bad for the poor" (as one advocate, Martin Ravallion (2005), puts it) and conversely that lower Gini coefficients correlate with pro-poor growth. Looking at the relationship between static inequality and poverty reduction on the extreme cases as a group, a mixed pattern emerges. Consistent with Ravallion's hypothesis, eight of the 14 negative exceptions had Gini coefficients above 45, the Gini coefficient of all the negative

[11] Nepal's government over the period in question for the first time focused on reducing poverty by supporting agriculture. Starting in the Sixth five-year plan (1980-1985), Nepal spent liberally on promoting agriculture, placing emphasis on food production and developing cash crops, such as tobacco and sugar cane (Regmi, 1997). Moreover, foreign aid from Japan and Europe focused on the agriculture sector and improving irrigation, watershed management, primary education and raising livestock. While there is doubt about Nepal's status as a positive exception (its low growth rate is likely underestimated, as discussed above), these programs likely helped significantly improve the income of the poor.

exceptions averaged 44.9 and not a single negative exception had a Gini coefficient lower than 30, Ravallion's informal standard for low inequality (p. 11). Also consistent with Ravallion's expectations, four of the 13 positive exceptions (Yemen, Norway 1989-1995, Finland and France) have Gini coefficients below 30 and two more (Nepal and Norway 1979-1984) have Gini coefficients under 31 (although Yemen and Nepal probably have serious measurement errors, as noted above). On the other hand, there are also six positive exceptions with Gini coefficients above 45 (mainly Latin American counties, plus Mauritania), and the Gini coefficients of all the positive exceptions averaged above 38 – not especially impressive. However, Ravallion's thesis would lead us to expect not only that low (high) Gini indices should induce a more (less) elastic relationship between economic growth and poverty, but also that a decreasing (increasing) inequality could explain positive (negative) exceptions.

Observing the Gini index more dynamically reveals an even clearer pattern that is remarkably consistent with Ravallion's expectations. Of the positive exceptions, all but two (El Salvador 1989-1995 and Mauritania) show increasing Gini indices – and El Salvador's Gini increased by less than a point over the entire period. Moreover, eight of the positive exceptions are among the ten cases which saw the greatest reduction of inequality. Moreover, every one of the negative exceptions showed worsening inequality; seven of these are among the top 10 cases for increases in the Gini index. The analysis of the specific cases underscores the role that low inequality plays in some of the positive exceptions, such as the social democratic Nordic countries, as well as France. High inequality is also related to some negative exceptions, including Brazil, an example that Ravallion (2005) cites in his article. Moreover, redistributive policies can address or partially override the negative effects of inequality, as occurred for instance in Colombia and Peru. Thus, changes in inequality clearly played a role in the pathways of many of these exceptional cases.

What of Dollar and Kraay's second argument (other than their contention that economic growth is good for the poor) that liberal policies – which they measure through low inflation, low government consumption, high openness to trade, depth of the financial system and establishment of rule of law – are best for achieving the growth that reduces poverty? While this article does not address the role of liberal policies for the cases nearer the regression line, the exceptional cases it does study (some 10 percent of Dollar and Kraay's sample) provides little support for liberalization. Indeed, among the numerous cases in the sample that liberalized, only two (Costa Rica and Mauritania) were positive exceptions. While Costa Rica (1977-1982) implemented an IMF program involving liberalization, this positive exception provides only weak support because the country's economy as a whole suffered badly over that five year period. Indeed, Costa Rica stands as one of the few countries, and one of three positive exceptions, in which the income of the poor increased (by two percent per year) even as incomes as a whole declined (3.4 percent per annum), and the Carazo government's economic management as a whole was considered disastrous (e.g., Wilson, 1999).[12] While another positive exception, Mauritania, did implement IMF policies linked to liberalization, these policies contributed to the country being a positive exception in an unusual way. As argued above, these policies reduced aggregate demand, hampering economic growth, but did not much affect the poorest of the rural poor. The poor meanwhile were greatly helped by a more stable political environment and effective government and the mining sector that hired many from

[12] This result contrasts with that of other studies, which indicate that poverty in Costa Rica increased between 1977 and 1983 from 16.1 percent to 30.5 percent (Rodriguez & Smith, 1994). This does not necessarily contradict Dollar and Kraay's data since the poorest quintile's income could increase even as poverty rate, which exceeds 20 percent, rises.

their ranks. Thus, overall stability and the opening of new opportunities that could be accessed by the poor were likely more important in understanding the growth of poor income. Meanwhile, several negative exceptions adopted policies consistent with the liberal agenda by implementing shock therapy programs (e.g., Post-Communist Eastern European cases), restructuring their economies (e.g., Mali, the Dominican Republic and Singapore) or shifting sharply away from progressive to more liberal policies (e.g., Colombia 1970-1978). Moreover, a number of positive exceptions implemented strategies in marked contrast to liberal policies, including sometimes radical redistribution (e.g., Colombia 1964-1970, Peru and El Salvador 1989-1995) and establishing social welfare programs of various types (e.g., France, Norway and Finland). Thus, these exceptional cases suggest that the effects of liberal policies on poverty and economic growth are at best contingent.

Analyzing four of Dollar and Kraay's indicators of liberalization (due to data limitations, the indicator for "rule of law" is constant for all countries) for changes between the dates also reveals mixed support for liberalization as a pathway explaining the exceptions.[13] If changes in the degree of liberalism were to explain the differences in residuals between the positive and negative exceptions, we might expect a systematic difference between these two types of cases in terms of changes in the four indicators with which Dollar and Kraay measure liberalism, and that such changes are systematically related to the residuals. However, an ANOVA test indicates no significant difference between the two groups of cases for any of these indicators, and a regression analysis run on these four variables against the residuals reveals a "P" value of 0.932 for the entire sample. Thus, analyzed in aggregate, these indicators of liberalization do not seem to explain the exceptional cases.

Focusing on cases more specifically, we might expect that percentage changes in the four indicators of the positive exceptions would rank highly compared to other cases. However, none of the positive cases rank even in the top quintile of all cases for each of the indicators. El Salvador (1989-1995) comes closest, ranking 38 of 231 for increasing trade openness, 5 of 248 for lowering government expenditure, 17 of 263 for lowering inflation and 66 of 232 for development of the financial sector. However, some of these changes (especially the first three) are likely to be caused by the end of the civil war and the normalization of relations with major trading partners more than policies of liberalization. Moreover, as argued above, since El Salvador's government overtly redistributed wealth during this period, this case is not a typical example of a liberalizing country, although this fact is not captured by these indicators. The only other positive exception that approximates conforming to liberalization is Chile. However, while the country ranked 10 of 184 for reductions in government expenditures and 46 of 175 for trade openness, Chile did not rank even in the upper third for changes in the other two indicators during this period. Moreover, that Chile comes this close to representing a case of liberalization is ironic, given the praise Milton Friedman and other liberal economists lavished on Pinochet's economic policies. Consistent with the analysis above, other positive exceptions, such as Honduras and Peru ranked near the bottom of liberalization. Ironically, all four indicators for Costa Rica, which implemented IMF liberalization policies, worsened, with the changes in indicators related to inflation and financial institutions ranked near the bottom. To be sure, there are negative exceptions that score badly on changes in liberalization – the authoritarian and closed governments of El Salvador (1977-1989) and Brazil are not surprising in this regard. However, while Poland ranks near the bottom for the other two indicators, lowered government spending and development of the financial industry, Poland's

[13] Unlike the case of inequality, where both the absolute value of the Gini index as well as changes in that index should influence the formation of exceptions, it makes more sense to study these four indicators dynamically, as such changes should represent the process of liberalization.

ranked 2 of 263 for increasing trade openness and 15 of 231 for lowered inflation, which is consistent with expert accounts that the country during this period typified liberalization. The negative exception of Dominican Republic, while ranking poorly for trade opening and lowered inflation, ranked 13 of 248 for reduction of government expenditures and 34 of 232 for its financial industry. Moreover, the negative exception of Singapore ranks at the very top for rule of law.

Two conclusions can be drawn from this review. First, this analysis underscores the weakness of these five commonly-used proxies of liberalization. For instance, trade as a proportion of GDP can increase from liberalization, but it can also increase with circumvention of sanctions, as is occurring with increasing exports of raw materials between China and Africa, or with the end of major conflict, as appears to be the case for El Salvador. Rule of law can be high in countries that are otherwise illiberal – Singapore has high government consumption and a heavy reliance on state-owned enterprise, but it ranks first for rule of law, for instance. Thus, one primary weakness is that the variables, which purport to reflect the expected results of liberalization, do not reflect well the degree of liberalization of actual policies implemented by a particular country. Supplementing these indicators, which emphasize the effects of policies, with an analysis of the policies that were actually implemented, is warranted. Otherwise, based solely on the indicators of liberalization, one might conclude that Post-Pinochet Chilean leaders actually liberalized, a conclusion with which Milton Friedman might have disagreed vehemently. Second, overall, there is little support for advocating liberal policies irrespective of the political, economic, or social context. The state was active in most positive exceptions (despite their differences), implementing new policies and social support program, strengthening institutions and even applying violence on the poor's behalf. While some also implemented some aspects of a liberal framework (controlling inflation, for instance), few of the positive exceptions can truly be considered liberal economic systems. On the other hand, many cases involving states that were withdrawing from a role in the economic arena in a manner consistent with liberal approaches ended up being negative, not positive, exceptions.

This brief survey is incomplete for a number of reasons. First, the database adopted for these exercises, though covering the experiences of an extensive range of countries over the past several decades, omits many countries, including the poorest, for which comparable quantitative data are difficult to obtain. While adopting Dollar and Kraay's data allows direct comparison with their analysis, in doing so this study also adopts many of the data's flaws. Moreover, limitations in space, time and expertise prevent the extensive exploration required to establish strong causal linkages between potential factors and the end result. Some exceptional cases were not analyzed, while the analysis for others was necessarily brief. Despite the need for additional work to trace causal connections between government policy and the economic effects, we can nevertheless suggest that in many cases, government strategies and policies shaped and influenced the degree of economic growth and poverty reduction, and the degree to which economic growth (or the lack thereof) influenced poverty rates.

In addition, the factors that are identified in this paper demand further attention. For instance, while some of the positive exceptions are Scandinavian social democracies (Finland and Norway), identifying them as such is insufficient to explain these performances. Since many social democracies (e.g., Sweden and Denmark) and many time periods in Norway and Finland were not exceptional under this study's strict criteria, further comparative research is needed to illuminate why some Scandinavian social democracies during certain periods were exceptional, while others were not. Similarly, some countries that restructured their economies achieved strikingly different results, with some (e.g., Costa Rica) becoming positive exceptions and others (e.g., Mali) becoming negative

ones. Identifying which factors, in combination with restructuring, led to these puzzling results requires a closer comparative review of the cases. Through qualitative methods, we can discover the complex array of factors, whether political, economic, social, geographic, demographic or otherwise, that interacted with such policies to produce these exceptional results.

One additional issue that should be addressed is the short-term nature of these cases (usually a five year span) versus the sometimes long-term benefits of economic growth. Those holding this view might argue that, valid as this article's conclusions might be in the short term, fewer exceptions might appear in the long term because the disjuncture between economic growth and poverty reduction narrows over time. Following the principles behind Kuznets's inverted "U" (which predicts that, due to varied responses from different economic sectors under economic growth, income inequality will initially increase for a time as the economy grows, before subsequently declining), we might expect that negative exceptions will occur while growth is primarily benefiting the non-poor, until the gap closes over time as the benefits of growth spread, possibly even creating positive exceptions (Kuznets, 1955). While little empirical evidence supports Kuznets's inverted "U" pattern (Kanbur, 2000), even without following that strict pattern, growth can eventually benefit the poor over the long-term. While this argument is plausible, many advocates of economic growth and liberal economic policies specifically reject "trickle-down" growth as an important mechanism for poverty reduction arguing that growth directly benefits the poor as much as other groups (e.g., Dollar and Kraay 2002, p. 219). Moreover, few of the cases discussed here fall into a pattern consistent with Kuznet's expectations. Colombia, for one, became a negative exception after – not before – it was a positive exception. El Salvador does show an inverted "U" pattern, but this is explained by peace and redistribution, not by the dynamics that Kuznets predicts. In many countries, such as China which in the 1980s showed an upright "U" pattern, inequality continues to expand, despite decades of growth. While the image of a generation sacrificing for the benefit of their children is evocative, in many cases, a generation of poor people toil for national development (or the enrichment of a narrow class), the benefits of which are skewed away from the poor, whether of their generation or the next. While economic growth may someday trickle down to the poor, the vague promises of such future gains may be a cold comfort.

Finally, what of the issue that some of these cases might be explained because poverty reduction policies came at the expense of economic growth? As discussed within some of the cases, this "trade-off" seems to apply to a number of positive exceptions, including the Scandinavian social democracies, as well as Peru, which implemented direct redistributive policies that alleviated poverty but reduced productivity and slowed the growth rate. There appears to be no trade-off in other cases, including that of Chile (which grew faster in the post-Pinochet era than it did before), Costa Rica (which did not implement major policies to help the poor that would conflict with growth) and possibly France (which faced a number of external pressures on growth, such as rising prices of oil and raw materials). Among some negative exceptions, economic growth sometimes came at the expense of the income of the poor. Singapore's stimulation of higher-order manufacturing, which required more human capital than many poor people were endowed with, increased growth at the expense of the income of the poor. Poland, among the shock therapy countries, achieved positive economic growth that traded off with jobs held by the poor. Colombia's cancellation of many pro-poor policies increased its rate of growth compared to the previous period (when it was a positive exception), while the income of lowest quintile dropped precipitously. Many of these exceptions, therefore, do suggest that in some cases economic growth indeed comes at the expense of poverty reduction, and sometimes efforts to reduce poverty slows economic growth.

5. CONCLUSIONS

This research project seeks to identify pathways to poverty reduction other than economic growth by focusing on exceptional cases. Many social scientists using regression and other types of quantitative methods often discard residual cases as random anomalies that, while inconvenient, do not detract significantly from, or contribute to, the overall conclusions. Granted, some exceptional cases will be explained by important but uninteresting (to social scientists at least) factors, such as weather or natural disasters, that are largely out of human hands. Data errors can create other apparent exceptions, such as the cases of Nepal and Yemen. Caution is warranted, in any case, when applying insights from such exceptions to other cases, as much damage has been caused by blindly applying models generated in certain spheres even when situations are dissimilar – advice that applies to policies derived from all ideologies.

Despite these concerns, it remains possible that these unusual patterns are caused by social actors who did something within the political, social or economic realms to achieve exceptional results. This suggests a general approach that applies to more than the question of the relationship between economic growth and poverty reduction: through disaggregating aggregate statistical models, we can identify potentially puzzling cases. Studying such anomalies – explaining and understanding them – furthers theory, a key mission for social scientists. Studying exceptions opens up theoretical space, allowing us to seek other factors that contributed (in this case) to reducing poverty. What is more, analyzing such exceptions deepens our understanding of the connection between economic growth and poverty reduction and the conditions under which this connection applies. Within the variation in Dollar and Kraay's data lie clues to alternative paths to effective poverty reduction – empirical models that policymakers seeking to reduce poverty can cautiously emulate, carefully adapt or consciously avoid. Studying such exceptional cases increases our knowledge about what (besides promoting economic growth) has worked or not worked for reducing poverty. As two economists argue:

> "… the general assertion that 'growth is good for the poor' is not the most interesting way to interpret this finding. What is interesting is to identify common features of positive (negative) residuals – cases where growth leads to substantially better (worse) poverty outcomes than predicted from global regressions. If these features can be linked to policies, there is a case for switching toward policies that connect the poor more to growth…" (Eastwood & Lipton, 2000, p. 40)

This paper answers this call. Its conclusions do not undermine a basic conclusion that economic growth and poverty reduction are often related – to assert that they do falls into the trap of radical falsificationism in which one or some exceptions undermine otherwise generally applicable theoretical statements. Yet in numerous cases involving tens of millions of poor people, economic growth is divorced from poverty rates. For negative exceptions, heady economic growth helped the poor less than expected or recessions hurt the poor significantly more than it did others. For positive exceptions, the income of the poor increased despite negative growth or poverty rates declined greatly in spite of more modest economic growth.

The pathways identified herein are not new, as scholars have cited many of these positive exceptions for their unexpected accomplishments in reducing poverty to a greater extent than economic growth alone could. Nevertheless, they reinforce the view that while a complete list of

viable pathways to poverty reduction should include economic growth (achieved through a number of ways) and liberal economic policies (which have reduced poverty through growth and independently of growth), numerous other strategies that have been used by countries to reduce poverty should also be included. It is true that none of these paths are 'systematic' mechanisms for poverty reduction in the sense that they do not apply "on average" across all cases. However the quest for systematic solutions to poverty comes dangerously close to a search for a panacea, part and parcel of the discredited attempt to confront complex and multifaceted social issues with a covering law. There is no miracle lever – not economic growth, not the market, not the state – to reduce poverty, for poverty reduction is contingent upon the type of development that has been achieved or policies implemented, and the impact of these on the livelihoods of the poor. Economic growth sometimes reduces poverty; sometimes, when poorly distributed, it leaves poverty untouched. Other times, when economic growth shifts market forces, capital and property rights against the interests of the poor, it can undermine the positions of the most vulnerable of society, exacerbating poverty. When economic growth does benefit the poor, often it is insufficient or takes a long time in coming. As Nobel Lauriat Amartya Sen's argued nearly two decades ago (it is equally true today), "Not merely is it the case that economic growth is a means rather than an end, it is also the case that for some important ends it is not a very efficient means either… It might well be the case that 'money answereth all things,' but the answer certainly comes slowly" (Sen, 1983, p. 754).

More than one billion people still live on less than one dollar a day, and annual poverty-related deaths exceed 18 million (Pogge, 2005). Given the contingent and sometimes long-delayed benefits of economic growth for the poor, and decades of fruitless search for a magic bullet, the imperative of discovering alternative pathways that work to reduce poverty remains urgent.

Table 1: Exceptional cases. Sources: Dollar and Kraay (2002); author's calculations

Country	Time Period	Annual Growth of GDP/Capita	Predicted annual change in income of lowest quintile	Reported annual change in income of lowest quintile	Residual Reported - Predicted	"Outlier"
Cases in which reported annual change in income of lowest quintile exceeded model's predictions						
Colombia	1964-1970	2.33%	2.08%	17.16%	15.08%	0.01%
Norway	1979-1984	2.75%	2.58%	14.57%	11.99%	0.12%
Finland	1962-1971	3.99%	4.05%	14.61%	10.56%	0.38%
Nepal	1977-1984	-0.15%	-0.86%	9.61%	10.47%	0.40%
Honduras	1986-1991	-0.25%	-0.97%	8.62%	9.60%	0.75%
Yemen	1992-1998	0.28%	-0.35%	8.00%	8.35%	1.70%
Mauritania	1988-1993	1.72%	1.36%	9.65%	8.30%	1.76%
Peru	1971-1981	0.91%	0.40%	8.51%	8.11%	1.98%
Chile	1987-1992	5.14%	5.41%	13.35%	7.94%	2.20%
Norway	1989-1995	2.67%	2.48%	10.26%	7.78%	2.41%
El Salvador	1989-1995	2.59%	2.39%	9.51%	7.11%	3.54%
France	1975-1981	2.19%	1.92%	9.01%	7.08%	3.59%
Costa Rica	1977-1982	-3.41%	-4.72%	2.25%	6.97%	3.83%
Cases in which reported annual change in income of lowest quintile fell below model's predictions						
Ukraine	1988-1995	-10.96%	-13.66%	-20.21%	-6.55%	4.80%
El Salvador	1977-1989	-1.74%	-2.73%	-9.31%	-6.58%	4.73%
France	1956-1962	3.84%	3.87%	-3.07%	-6.95%	3.87%
Singapore	1978-1983	5.83%	6.23%	-1.28%	-7.51%	2.82%
Mali	1989-1994	-2.62%	-3.78%	-11.39%	-7.61%	2.67%
Poland	1991-1996	4.83%	5.04%	-2.73%	-7.78%	2.42%
Estonia	1988-1993	-8.40%	-10.63%	-18.41%	-7.78%	2.41%
Colombia	1970-1978	3.35%	3.29%	-4.79%	-8.08%	2.02%
Dominican Rep	1984-1989	2.38%	2.15%	-6.45%	-8.59%	1.46%
Brazil	1986-1993	-0.97%	-1.83%	-10.57%	-8.75%	1.32%
China	1990-1995	8.71%	9.64%	0.87%	-8.77%	1.30%
Bulgaria	1989-1994	-4.86%	-6.43%	-16.28%	-9.85%	0.63%
Puerto Rico	1963-1967	6.08%	6.53%	-4.80%	-11.33%	0.21%
Russia	1988-1993	-6.43%	-8.30%	-20.88%	-12.58%	0.07%

Table 2: Multiple Paths toward/away from Poverty Reduction

Positive Exceptions	
1) Progressive Redistribution	
Colombia (1964-1970)	Peru (1971-1981)
El Salvador (1989-1995)	Chile (1987-1992)
2) Social Welfare Programs	
France (1975-1981)	
3) Social Democracy	
Finland (1962-1971)	Norway (1989-1995)
Norway (1979-1984)	
4) Liberal Policies/Structural Readjustment	
Costa Rica (1977-1982)	
5) Stability/Opportunities accessible by the poor	
Mauritania (1988-1993)	

Negative Exceptions	
1) Regressive Redistribution	
Colombia (1970-1978)	China (1990-1995)
2) Structural Adjustment	
Mali (1989-1994)	Singapore (1978-1983)
3) Violence/Chaos	
El Salvador (1977-1989)	
4) Corruption/Debt	
Brazil (1986-1993)	
5) Shock Therapy	
Bulgaria (1989-1994)	Ukraine (1988-1995)
Estonia (1988-1993)	Russia (1988-1993)
Poland (1991-1996)	

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